Abstract

An access node or access port has physical connectors for a variety of signal-receiving and -transmitting devices and includes apparatus that allow all signals used by the devices to be carried by as few as one or two conduits. The conduits can be any signal-carrying medium, including media converters where necessary. Signals are converted to and from addressed data packets carried in a packet stream over the conduits. A central node or node zero receives signals from outside the structure, converts them to addressed data packets, and sends the packets over the conduit(s) as the packet stream. Access nodes take packets addressed to them, convert packets back into the original signals, then feed the signals to appropriate connectors on the access nodes. The central node can also allow internode communication. In place of one of or in addition to the physical connectors, the node has a transceiver in wireless communication with another transceiver connected to a device outside the node using RF or infrared communication. The wireless communication between transceivers can carry the packet stream where one of the transceivers is in the central node. When one of the transceivers is connected to a device, such as a VCR, personal computer, or other signal-transmitting and/or -receiving device, the device can receive signals from the network without having cables extending between the access node and the device.